UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,620	07/25/2003	Paul J. Rudeck	M4065.0567/P567-A	9373

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EXAMINER
SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
2813	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/626,620	RUDECK, PAUL J.
	Examiner	Art Unit
	Laura M. Schillinger	2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 April 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-13 and 66* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *9-13, 66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 9-13 and 66 are rejected under 35 U.S.C. 102(a) as being anticipated by Admitted

Prior Art (hereinafter referred to as "APA"- the citations below pertain to Applicant's

specification).

APA teaches the following claimed limitations as follows:

9. A memory device comprising:

a substrate (APA – Fig.2A);

a gate stack pair comprising two gate stacks formed on the substrate (APA- Fig.2A and page 3

[0007];

a conductive contact between the two gate stacks and in contact with a doped region of the

substrate (page 1 [0003]);

a vertical oxide spacer adjacent to each gate stack of the gate stack pair (Fig.3 (11));

a respective nitride layer overlaying and in contact with each of said vertical oxide spacer and

each said gate stack neither of the nitride layers extending to overlay the doped region (APA-

Fig. 2C (12) and page 3 [0007]);

a respective dielectric layer (21) overlaying each of the nitride layer (13), the dielectric layer

being spaced from each of the vertical oxide spacer (11) by the nitride layer (13) (Fig.3).

10. The memory device of claim 9, wherein said gate stack comprises a floating gate and a

control gate (APA- Fig.1 (4 and 6) and page 2 [0006]).

11. The memory device of claim 9, wherein said vertical oxide spacer is between about 50 A and

about 300A in thickness (APA- page 3 [0007]).

12. The memory device of claim 11, wherein said vertical oxide spacer is about 100A and about

200A in thickness (APA- page 3 [0007]).

13. The memory device of claim 9, wherein said nitride layer has a thickness equal to about one

half the width of said vertical oxide spacer (APA – compare Fig.2C (11 and 12).

66. (New) The memory device of claim 9, wherein the dielectric layer comprises

borophosphosilicate glass (Fig.3 (21)).

Response to Arguments

Applicant's arguments filed 4/4/07 have been fully considered but they are not

persuasive. Applicant argues that APA fails to teach a dielectric layer spaced apart from the

vertical oxide spacer- however the Examiner interprets this to occur because nitride layer 13 acts

as a spacer between the vertical oxide layer 11 and the dielectric 21.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time
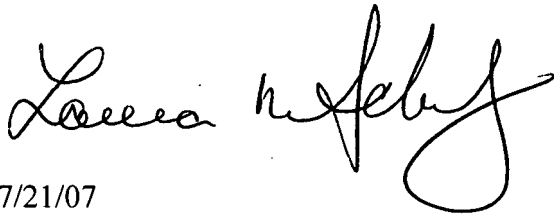
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697.

The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura M Schillinger
Primary Examiner
Art Unit 2813

7/21/07